What is claimed is:

1. A structure of a micro electro mechanical system, suitable to use on an optical interference display cell, the structure of a micro electro mechanical system comprising:

a first electrode;

a second electrode comprising:

a first material layer; and

a conductor layer set on the first material layer and approximately in parallel to the first electrode; and

a supporter set between the first electrode and the first material layer to form a cavity;

wherein the first material layer protects the second electrode from the etching of the etching regent, when a sacrificial layer between the first electrode and the first material layer is removed through a structure release etch process to form the cavity.

2. The structure of a micro electro mechanical system of claim 1, wherein the material of the sacrificial layer is selected from the group consisting of dielectric material, metal material or silicon material.

3. The structure of a micro electro mechanical system of claim 1, further comprising a second material layer covering the second electrode.

4. The structure of a micro electro mechanical system of claim 1, further comprising:

a second material layer set on the second electrode; and

a spacer set on the sidewalls of the second electrode and the first material layer.

5. The structure of a micro electro mechanical system of claim 1, wherein the material of the first material layer is selected from the group consisting of silicon material, dielectric material, transparent conductor material, macromolecule polymer, metal oxide and any arbitrary combination thereof.

6. The structure of a micro electro mechanical system of claim 3, wherein the material of the second material layer is selected from the group consisting of silicon material, dielectric material, transparent conductor material, macromolecule polymer, metal oxide and any arbitrary combination thereof.

7. The structure of a micro electro mechanical system of claim 4, wherein the material of the spacer is selected from the group consisting of silicon material, dielectric material, transparent conductor material, macromolecule polymer, metal oxide and any arbitrary combination thereof.

8. The structure of a micro electro mechanical system of claim 5, wherein the silicon material is poly-silicon or amorphous silicon.

9. The structure of a micro electro mechanical system of claim 6, wherein the silicon material is poly-silicon or amorphous silicon.

10. The structure of a micro electro mechanical system of claim 7, wherein the

silicon material is poly-silicon or amorphous silicon.

11. The structure of a micro electro mechanical system of claim 5, wherein the dielectric material is silicon oxide, silicon nitride, or silicon oxynitride.

12. The structure of a micro electro mechanical system of claim 6, wherein the dielectric material is silicon oxide, silicon nitride, or silicon oxynitride.

13. The structure of a micro electro mechanical system of claim 7, wherein the dielectric material is silicon oxide, silicon nitride, or silicon oxynitride.

14. The structure of a micro electro mechanical system of claim 5, wherein the transparent conductor material is indium tin oxide, indium zinc oxide, or indium oxide.

15. The structure of a micro electro mechanical system of claim 6, wherein the transparent conductor material is indium tin oxide, indium zinc oxide, or indium oxide.

16. The structure of a micro electro mechanical system of claim 7, wherein the transparent conductor material is indium tin oxide, indium zinc oxide, or indium oxide.

17. The structure of a micro electro mechanical system of claim 5, wherein the macromolecule polymer is paraffin or macromolecule material that can be coated by vapor.

18. The structure of a micro electro mechanical system of claim 6, wherein the

macromolecule polymer is paraffin or macromolecule material that can be coated by vapor.

19. The structure of a micro electro mechanical system of claim 7, wherein the macromolecule polymer is paraffin or macromolecule material that can be coated by vapor.

20. The structure of a micro electro mechanical system of claim 1, wherein the thick of the first material layer is about several angstroms to 2000 angstrom.

21. The structure of a micro electro mechanical system of claim 1, wherein the thick of the first material layer is preferably about 200 angstrom to 1000 angstrom.

22. The structure of a micro electro mechanical system of claim 3, wherein the thick of the second material layer is about several angstroms to 2000 angstrom.

23. The structure of a micro electro mechanical system of claim 3, wherein the thick of the second material layer is preferably about 200 angstrom to 1000 angstrom.

24. The structure of a micro electro mechanical system of claim 1, wherein the material of forming the supporter comprises positive photoresists, negative photoresists, acrylic resins, and epoxy resins.

25. The structure of a micro electro mechanical system of claim 1, wherein the material of forming the conductor layer is metal material.

26. The structure of a micro electro mechanical system of claim 1, wherein the second electrode is a movable electrode.

27. A structure of a micro electro mechanical system, suitable to use on an optical interference display cell, the structure of a micro electro mechanical system comprising:

a first electrode;

a second electrode set approximately in parallel to the first electrode;

a material layer covering the second electrode; and

a supporter set between the first electrode and the material layer and forming a cavity;

wherein the material layer protects the second electrode from the etching of the etching regent, when a sacrificial layer between the first electrode and the first material layer is removed through a structure release etch process to form the cavity.

28. The structure of a micro electro mechanical system of claim 27, wherein the material of the sacrificial layer is selected from the group consisting of dielectric material, metal material or silicon material.

29. The structure of a micro electro mechanical system of claim 27, wherein the material of the material layer is selected from the group consisting of silicon material, dielectric material, transparent conductor material, macromolecule polymer, metal oxide and any arbitrary combination thereof.

30. The structure of a micro electro mechanical system of claim 29, wherein the silicon material is poly-silicon or amorphous silicon.

31. The structure of a micro electro mechanical system of claim 29, wherein the dielectric material is silicon oxide, silicon nitride, or silicon oxynitride.

32. The structure of a micro electro mechanical system of claim 29, wherein the transparent conductor material is indium tin oxide, indium zinc oxide, or indium oxide.

33. The structure of a micro electro mechanical system of claim 29, wherein the macromolecule polymer is paraffin or macromolecule material that can be coated by vapor.

34. The structure of a micro electro mechanical system of claim 27, wherein the thick of the material layer is about several angstroms to 2000 angstrom.

35. The structure of a micro electro mechanical system of claim 27, wherein the thick of the material layer is preferably about 200 angstrom to 1000 angstrom.

36. The structure of a micro electro mechanical system of claim 27, wherein the material of forming the supporter comprises positive photoresists, negative photoresists, acrylic resins, and epoxy resins.

37. The structure of a micro electro mechanical system of claim 27, wherein the second electrode is a movable electrode.

38. A manufacturing method of an optical interference display cell, suitable on a substrate, the manufacturing method of an optical interference display cell comprising:

forming a first electrode on the substrate;

forming a sacrificial layer on the first electrode;

forming at least two openings in the sacrificial layer and the first electrode, and defining the position of the optical interference display cell;

forming a supporter in the opening;

forming a first material layer on the sacrificial layer and the supporter;

forming a conductor layer on the first material layer;

defining the conductor layer and the first material layer to form a second electrode; and

removing the sacrificial layer through a structure release etch process.

39. The manufacturing method of an optical interference display cell of claim 38, after defining the conductor layer and the first material layer further comprising:

forming a second material layer covering the second electrode; and

removing part of the second material layer to exposure the sacrificial layer beneath the second material layer.

40. The manufacturing method of an optical interference display cell of claim 38, wherein the material of forming the sacrificial layer is selected from the group consisting of dielectric material, metal material or silicon material.

41. The manufacturing method of an optical interference display cell of claim 38,

wherein the material of forming the first material layer is selected from the group consisting of silicon material, dielectric material, transparent conductor material, macromolecule polymer, metal oxide and any arbitrary combination thereof.

42. The manufacturing method of an optical interference display cell of claim 39, wherein the material of forming the second material layer is selected from the group consisting of silicon material, dielectric material, transparent conductor material, macromolecule polymer, metal oxide and any arbitrary combination thereof.

43. The manufacturing method of an optical interference display cell of claim 41, wherein the material of forming the silicon material is poly-silicon or amorphous silicon.

44. The manufacturing method of an optical interference display cell of claim 42, wherein the material of forming the silicon material is poly-silicon or amorphous silicon.

45. The manufacturing method of an optical interference display cell of claim 41, wherein the material of forming the dielectric material is silicon oxide, silicon nitride, or silicon oxynitride.

46. The manufacturing method of an optical interference display cell of claim 42, wherein the material of forming the dielectric material is silicon oxide, silicon nitride, or silicon oxynitride.

47. The manufacturing method of an optical interference display cell of claim 41, wherein the material of forming the transparent conductor material is indium tin oxide, indium zinc oxide, or indium oxide.

48. The manufacturing method of an optical interference display cell of claim 42, wherein the material of forming the transparent conductor material is indium tin oxide, indium zinc oxide, or indium oxide.

49. The manufacturing method of an optical interference display cell of claim 41, wherein the material of forming the macromolecule polymer is paraffin or macromolecule material that can be coated by vapor.

50. The manufacturing method of an optical interference display cell of claim 42, wherein the material of forming the macromolecule polymer is paraffin or macromolecule material that can be coated by vapor.

51. The manufacturing method of an optical interference display cell of claim 38, wherein the thick of the first material layer is about several angstroms to 2000 angstrom.

52. The manufacturing method of an optical interference display cell of claim 38, wherein the thick of the first material layer is preferably about 200 angstrom to 1000 angstrom.

53. The manufacturing method of an optical interference display cell of claim 39,

wherein the thick of the second material layer is about several angstroms to 2000 angstrom.

54. The manufacturing method of an optical interference display cell of claim 39, wherein the thick of the second material layer is preferably about 200 angstrom to 1000 angstrom.

55. The manufacturing method of an optical interference display cell of claim 38, wherein the second electrode is a movable electrode.

56. The manufacturing method of an optical interference display cell of claim 38, wherein the material of forming the supporter comprises positive photoresists, negative photoresists, acrylic resins, and epoxy resins.

57. A manufacturing method of an optical interference display cell, suitable on a substrate, the manufacturing method of an optical interference display cell comprising:

forming a first electrode on the substrate;

forming a sacrificial layer on the first electrode;

forming at least two openings in the sacrificial layer and the first electrode, and defining the position of the optical interference display cell;

forming a supporter in the opening;

forming a first material layer on the sacrificial layer and the supporter;

forming a conductor layer on the first material layer;

forming a second material layer on the conductor layer;

defining the second material layer, the conductor layer and the first material layer

to form a second electrode; and

removing the sacrificial layer through a structure release etch process.

58. The manufacturing method of an optical interference display cell of claim 57, after defining the second material layer, the conductor layer and the first material layer further comprising:

forming a third material layer covering the second electrode; and

etching the third material layer through a self-aligned etching process and forming a spacer on the sidewall of the second electrode.

59. The manufacturing method of an optical interference display cell of claim 57, wherein the material of forming the sacrificial layer is selected from the group consisting of dielectric material, metal material or silicon material.

60. The manufacturing method of an optical interference display cell of claim 57, wherein the material of forming the first material layer and the second material layer is selected from the group consisting of silicon material, dielectric material, transparent conductor material, macromolecule polymer, metal oxide and any arbitrary combination thereof.

61. The manufacturing method of an optical interference display cell of claim 58, wherein the material of forming the third material layer is selected from the group consisting of silicon material, dielectric material, transparent conductor material, macromolecule polymer, metal oxide and any arbitrary combination thereof.

62. The manufacturing method of an optical interference display cell of claim 60, wherein the material of forming the silicon material is poly-silicon or amorphous silicon.

63. The manufacturing method of an optical interference display cell of claim 61, wherein the material of forming the silicon material is poly-silicon or amorphous silicon.

64. The manufacturing method of an optical interference display cell of claim 60, wherein the material of forming the dielectric material is silicon oxide, silicon nitride, or silicon oxynitride.

65. The manufacturing method of an optical interference display cell of claim 61, wherein the material of forming the dielectric material is silicon oxide, silicon nitride, or silicon oxynitride.

66. The manufacturing method of an optical interference display cell of claim 60, wherein the material of forming the transparent conductor material is indium tin oxide, indium zinc oxide, or indium oxide.

67. The manufacturing method of an optical interference display cell of claim 61, wherein the material of forming the transparent conductor material is indium tin oxide, indium zinc oxide, or indium oxide.

68. The manufacturing method of an optical interference display cell of claim 60,

wherein the material of forming the macromolecule polymer is paraffin or macromolecule material that can be coated by vapor.

69. The manufacturing method of an optical interference display cell of claim 61, wherein the material of forming the macromolecule polymer is paraffin or macromolecule material that can be coated by vapor.

70. The manufacturing method of an optical interference display cell of claim 57, wherein the thick of the first and the second material layer is about several angstroms to 2000 angstrom.

71. The manufacturing method of an optical interference display cell of claim 57, wherein the thick of the first and the second material layer is preferably about 200 angstrom to 1000 angstrom.

72. The manufacturing method of an optical interference display cell of claim 57, wherein the second electrode is a movable electrode.

73. The manufacturing method of an optical interference display cell of claim 57, wherein the material of forming the supporter comprises positive photoresists, negative photoresists, acrylic resins, and epoxy resins.